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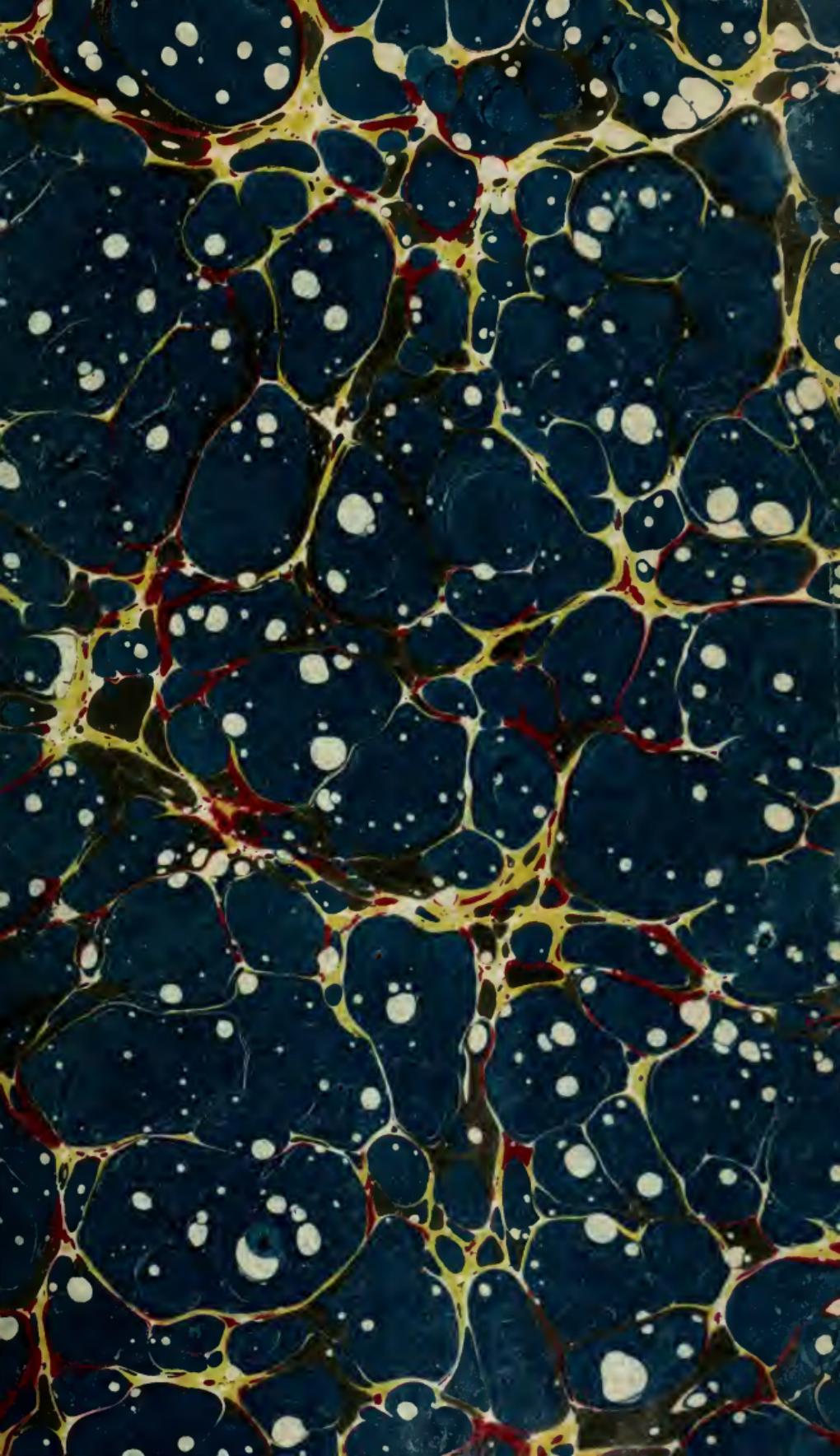
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THE  
USES OF THE CAMEL:

CONSIDERED WITH A VIEW TO HIS INTRODUCTION INTO  
OUR WESTERN STATES AND TERRITORIES.

A PAPER

READ BEFORE THE AMERICAN GEOGRAPHICAL AND STATISTICAL  
SOCIETY, MARCH 2d, 1865.

BY

JOSEPH WARREN FABENS,

NON-RESIDENT MEMBER OF THE SOCIETY.



NEW YORK:  
*Carleton, Publisher, 413 Broadway.*

WASHINGTON, D. C.: FRANCK TAYLOR.

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## INTRODUCTORY REMARKS.

THE cession of California to the United States by the treaty of Guadalupe Hidalgo, in 1848, was an event fraught with the most important consequences to our country. It was one of those events which mark eras in a nation's history. It gave to us an uninterrupted stretch from ocean to ocean across the finest parallels of the earth's surface. It opened to the imagination a new highway to the Indies, and foreshadowed the idea of a continental domain where the world's last great empire should sit enthroned. Yet its first promise, though grand, was somewhat remote and obscure until illuminated by the halo of that wonderful discovery of gold which followed immediately upon our occupation of its territory.

The effect of this discovery was not merely to infuse new vigor, and a broader, hardier development into the American character, and give a swift impetus to our national growth; but it made our country, as it were, a centre to which was attracted the migratory population of other lands. Circumstances favored this end. An appalling famine was scourging Ireland. Europe was rocking under political convulsions, and a great tide of immigration, following the traditional path of empire, was surging upon our Atlantic shores. The volume was easily broken, for a long-continued influx of immigrants had at length raised up a barrier against themselves, and a portion was swept round to the Pacific. There, on those golden shores, where toil and recompense went hand in hand, representatives of every country in Europe worked side by side with American citizens, native Indians, Peruvians, Chilians, and the half-breeds of Mexico and Central America. "The Australian joined them from

his continent in the South ; the Malay and Polynesian from the isles of the Pacific ; while the Chinaman came forth like an anchorite from his cell, built a temple for his idols in San Francisco, and joined in a conourse of human tribes such as the world never before beheld." The *auri sacra fames* was a fever in men's blood—Cape Horn and Magellan were familiar as household words. The narrow belt of the Isthmus of Panama was thronged with an eager, straining multitude. Up against the swift current of the often fatal Chagres river, under broiling suns and drenching rains, they toiled. Along the Gorgona or Cruees road, through mud, such as no army of the Potomac ever dreamed of, they waded, and with unblanched cheeks they faced the pestilence that stalketh at noonday. But that road, which is to be the highway of nations, and which will be worthy of its name—that path, where the traveller from the farthest East, and the traveller from the farthest West, shall meet and clasp hands ; across the American plains, over the Rocky Mountains, along the great central plateau, through the gorges of the Sierra Nevada down into California—was untravelled, because unexplored—unknown. Here and there a hunter or a trapper,—a few adventurous spirits, journeying, like Abraham and Lot, westward with their flocks and herds,—these, and the Indians whom we hunted to their inevitable doom, and flying Mormons whom we hounded till they stood at bay, and prospered in the wilderness and made the desert as the rose, were all the sojourners in that magnificent land.

Years rolled away—ten short, busy years—and in the summer of 1858, Greene Russell and a party of adventurers, following up the Arkansas River, came to the country about Pike's Peak, and there found gold. Here was another point of attraction, and the overland travel to Colorado began. Afterwards, but at a long interval, came the silver discoveries of Arizona and Nevada ; then the mineral discoveries of Idaho, Montana, Utah, and New Mexico, flashing suddenly and brightly from hill-side to hill-side, like the fires which bore tidings of Greeian victory in old Homer's song—rather like the breaking of a new day on the mountain-tops, coming from the west, and reversing the order of the sun, and shedding over hill and valley and rolling plain, "the light that never was on land or sea."

The line of travel has set in along this route, and needs only

increased facilities to be increased a hundred fold. For these lands that now, for the first time, have bared their lustrous bosomis to the day, invite the settler with a health-giving climate, a fertile soil, wood and water, and resources of pastoral agriculture unrivalled on the globe. The Rocky Mountains, no longer regarded as a barrier to separate the east from the west, are recognized as the strong backbone, permeated with veins of material power to hold the country together. A recent writer, whom I infer to be ex-Governor Gilpin of Colorado, whose eloquent description of the parks of that territory we had the pleasure of listening to in these halls last season, says: "The amount of transportation between the Missouri River and Colorado, as the first point of entrance to the great mountain system, is prodigious. The great plains represent the ocean between the city of New York and Liverpool. It is no uncommon thing to see as many as five thousand wagon-teams in one camp, and it is not setting the figure too high to say that at least half a million of people are more or less interested or engaged in this vast system of intra-continental transportation."

A daily line of stages is running, with tolerable regularity, from Atchison to Placerville, California. The Mormons have their trains; and thousands of adventurers, apart from the above-described travel to Colorado, with their own private conveyances, are pressing annually to the farthest west. Yet this method of communication with our territories is slow and difficult, and runs but over a narrow ribbon or two of soil. The large portion of our western domain is yet untrodden by the foot of civilization, inviting the explorer with its promise of fresh fields and pastures new.

The Secretary of the Interior, in his last annual report to Congress, says: "During the past year additional discoveries of precious metals, particularly of silver, have been made in the region flanking on the eastward the extended mountain ranges of the Sierra Nevada. A vast belt of some one or two hundred miles in width, and eight or nine hundred miles in length, embracing portions of Idaho, Nevada, and Arizona, is rich in silver ore. Owing to the remote locality of these mines, and the difficulty of transportation thereto, but little machinery well adapted to the rapid and economical reduction of the various ores has been introduced. In that portion of Nevada

through which the Pacific Railroad will pass, many rich veins have been found, and it is estimated, by persons familiar with the subject, that if the mines now opened there were supplied with the proper machinery, they would yield ten millions of dollars per month. When we reflect that the region of country in which deposits of the precious metals abound, includes large portions of three States and six Territories, and that the richest veins of ore heretofore discovered are as yet but slightly developed, while new discoveries are constantly being made, it will be perceived that the annual product of the mines in the United States must soon reach a magnitude without precedent in the history of mining operations."

And again :—"The mines of New Mexico and Arizona are probably not inferior in richness to any within the limits of the United States. Owing to their inaccessibility they are indifferently wrought; all efforts to make them available must necessarily be feeble, and attended with but partial success, until roads shall have been constructed through those Territories from the Atlantic States, or from the navigable waters of the Pacific. The benefits resulting from such roads would not be confined to the product of the mines. A new highway, at all times exempt from obstruction by snow, would be open to the Pacific. Passing by the valley of the Rio Grande to El Paso, it would receive a large portion of the rich commerce of Central and Western Mexico."

Here is food for consideration. The country teeming with precious metals, and gold at one hundred per cent. premium in its great commercial mart! Now, it must be evident to all, that one of the principal means to be used for restoring the national credit, and thereby putting the crowning cap-stone to the nation's triumph over its enemies everywhere, is to facilitate emigration and cheaper transportation to the mining regions. And as an adjunct in this movement, I respectfully propose the CAMEL. I do most earnestly believe, and it is a conviction forced upon me after long study and observation of the subject, that the introduction of the camel into our western States and Territories, on a scale of sufficient magnitude, will furnish a cheaper, speedier, safer, more regular and reliable mode of travel and transportation than any which now exists, or will be substituted until the iron horse snorts defiance to all competitors.

## DOMESTICITY AND DOCILITY.

The camel is presented to us from the beginning as the friend and servant of man. He figures in the first catalogue of domestic animals of which we have any record, and appears in this domestic state to have been a birthday gift to man from his Creator. In those primitive days, when the earth was fresh from the hands of its Maker, and the uses of the several kingdoms, which God gave man for his inheritance, were best understood, we find the camel to have been the most regarded of all the animal creation; the companion of his master in his farthest wanderings, as well as the denizen of his household and the playmate of his children. When a wife was sought for Isaac, the old servant of Abraham fixed upon a regard for camels as an appropriate mark by which he would not fail to recognize the maiden whom the Lord had destined for the favorite child of his master. And how beautifully did the gentle Rebecca answer to the test: "And when she had done giving him drink, she said, I will draw water for thy camels also, until they have done drinking.

"And she hasted and emptied her pitcher into the trough, and ran again unto the well to draw water, and drew for all his camels."

When Jacob was returning home, and wished to meet his brother Esau upon friendly terms, he sent him, among other presents, thirty milch camels with their colts. Then, as now, on the long inland eastern routes the camel was the family conveyance; Jacob in his travels, we are told, set his sons and wives upon camels, probably several upon the same animal. It is certainly no uncommon sight, at the present day, to see half a dozen women and children huddled cozily a camel-back, going to make a neighborly call on some cousins, perchance two or three hundred miles distant. The appreciation of the camel to kindness, in word or tone or touch, has, doubtless, much to do in rendering him the favorite animal of the household, and, indeed, causing him to be looked upon as an inseparable portion thereof. The marabouts in Africa, when they enter a house, invoke a blessing on the chief and on his wives, his children and his camels; and when they are sent to negotiate a peace with a belligerent tribe, they preface their diplomatic

conference by a warning note, that as they, the belligerents, treat the terms proposed, so shall they and their camels be dealt with. The author of "An Excursion in Asia Minor" says: "The care of the camels seems to be very much left to the children. I have just watched a string stopping on an open plain. A child twitched the cord suspended from the head of the first—a loud gurgling growl indicated the pleasure of the camel as it awkwardly knelt down, and the child, who could just reach its back, unlinked the hooks which suspended from either side the bales of cotton; another child came with a bowl of water and a sponge, and was welcomed with a louder roar of pleasure as it washed the mouth and nostrils of the animal; this grateful office ended, the liberated camel wandered off to the thicket to browse during the day—and this was done to each of the forty-five, which, all unbidden, had knelt down precisely as the one I have described, forming a circle, which continued marked during the day by the bales of goods lying at regular distances. On a given signal in the afternoon, at about three o'clock, every camel resumed its own place and knelt down between its bales, which were again attached, and the caravan proceeded on its tardy course.

"I am not surprised at finding the strong attachment of these animals to the children, for I have often seen three or four of them, when young, lying with their heads inside a tent, in the midst of the sleeping children, while their long bodies remained outside."

"Oh, tribes of Sahara," says an Arab song, "you boast of your camels, but know you, that they who would possess camels, must know how to defend them."

The peculiar gentleness, the docility of the camel; his plaintive voice; his coaxing looks and gestures; his "soft, womanish ways," as Kinglake styles them; the fidelity with which he clings to man, and the need which he seems to feel of his protection, excite those sentiments of pity which are akin to love, even as his sturdier and more heroic characteristics challenge our admiration.

The general kindness with which camels are treated in the East, is of course not without many lamentable exceptions. Woe to the unfortunate camel who falls sick on the road. The hot iron or some fiery internal application is freely and merci-

lessly applied, until the animal staggers on in sheer desperation, or succumbs sullenly to his fate. I have seen Arabs belaboring their beasts most cruelly because they hesitated to rise under their heavy packs, perchance for the twentieth time, at the mere whim of their drivers. Admiral Porter, who commanded the "Supply" when the government camels were brought over in that ship, says, that on one occasion, when a camel was slow to rise, one of the natives in charge suggested pouring a bucket full of scalding hot pitch over his back. Porter dryly observes that he had no doubt of the efficacy of the application, as regarded the camel's getting up quickly, but he preferred a more merciful method, which had the desired effect. Last summer, having some camels to send by railroad from Marseilles to Paris, I dispatched them from the ship to the station in charge of an Arab, with instructions not to embark them until my arrival. When I got there I found one of the animals covered with ropes, and six Frenchmen pulling away on them as for dear life, to drag him into the cars. Of course the camel resisted, and the six Frenchmen were getting the worst of it. I ordered the ropes cut adrift, told the Arab to bring up a bag of barley, wherewith in a persuasive manner he was to precede the animals into the car. The camels at once saw the point of the joke, and yielded gracefully to the *suaviter in modo*.

#### GEOGRAPHICAL RANGE.

Nothing can be more erroneous than the opinion which commonly prevails with regard to the geographical range of the camel. Because he is better adapted than any other animal to certain local conditions, and, indeed, by his remarkable powers of abstinence and endurance, has bridged over vast spaces of the earth's surface, not otherwise penetrable by man, many have inferred that, apart from these influences of soil and climate, he would deteriorate and become comparatively useless. General literature fosters this idea, and associates the camel exclusively with the hot sun, the shifting sands, and waving palms of the desert. But the facts of the case destroy this poetical illusion. The principal countries where the camel has been in extensive use for centuries lie between the 15th and 52d degrees of north latitude—the large portion being in the north temperate zone. Johnson, in his Physical Atlas,

embraces in the camel countries the Canary Islands, Morocco, Algiers, Tunis, Tripoli, the Great Desert back of those countries, and Egypt on the continent of Africa, Arabia, Asiatic Turkey, Persia, Cabool, Beloochistan, Hindooostan, Birmah, Thibet, Mongolia, a portion of Siberia, and Tartary in Asia, the Crimea, and European Turkey.

It will be seen that we have within these limits seasons of the most intense cold as well as tropical heat.

In conversing with a venerable Arab, in Algiers, on the subject of introducing camels into the United States, I suggested the propriety of purchasing the mountain breed, which are used chiefly between the northern limit of the Great Desert and the Mediterranean, where the climate does not vary much from that of our Western country. "By no means," said he; "take the desert camels. The animals that can stand extreme heat can support equally well extreme cold."

Erman writes, under date of February 20th, and with a temperature of twenty-five degrees of Fahrenheit below zero:—"On the Chinese side (at Kiachta) we saw seventy fine camels turned loose, and feeding on the frozen and withered grass. They fear the severe winters of this climate as little as the parching heat in the sand-steppes;" and Marsh, our former minister to Constantinople, now Minister at Turin, adds to the foregoing:—

"So numerous is the camel in these frozen realms, that almost the whole commerce between Russia and China, by way of Kiachta, is carried on by means of them, and they transport merchandise over the vast distance between Orenburg on the Ural, and Pretropawlowsk on the peninsula of Kamschatka. In the month of October, Timkorski met on the desert of Gobi, in latitude 46° north, and at the height of two thousand five hundred feet above the sea, a herd of twenty thousand camels. The Russian expedition against Khiva and Bokhara, in 1840, employed more than an equal number, and Berghaus estimates the number of camels in European Russia at not less than one hundred thousand.

"Father Huc's lively narrative of his travels in Tartary is full of similar proofs of the power of the camel to brave the icy frosts and chilling blasts of that frigid region, and we may reasonably conclude that he is able to endure the greatest

extremes of temperature known in climates habitable by civilized man."

The introduction of the camel into Tuscany has been a marked success. They have multiplied from a few that were brought from Upper Egypt, and now number several hundred. They are used on the farm of the Grand Duke at Pisa, where they do excellent service, requiring no food beyond what they can gather for themselves by browsing among the pine barrens, and are not housed during winter in the latitude of  $43^{\circ} 30'$  north, where the climate is more trying than in our Northwestern Territories.

The results of the experiments made with the camels in the Zoological Gardens in London, and the Jardin des Plantes and Jardin d'Acclimation, in Paris, have been equally gratifying. The camel-attendant in the London gardens told me that the water frequently froze quite solid in the stables, but the animals did not seem to suffer at all from the cold. He considered them, indeed, less liable to be affected by change of weather than the rugged coach-horse of England.

Jamrock, a famous dealer in animals in London, had six fine camels in his stables last fall, which he told me he could not find a market for in England. He said he had already supplied the men of taste who fancied good animals; that the menageries were full; and added that they would probably remain so; that camels were very hardy animals; never died, etc. He seemed quite gloomy about it.

#### FRUGALITY AND POWER OF ABSTINENCE.

The characteristic which pre-eminently distinguishes the camel from other animals of draught or burden is his frugality and extraordinary power of abstinence. He takes kindly to the coarsest grasses and shrubs, munching dry leaves, branches of pine or cedar, thistles, and other prickly plants, with apparent relish. It is not the custom of the Eastern tribes to feed their camels. They subsist, for the most part, on what they pick up on their travels, and when turned out to browse at night. When herbage and browse are not to be had at all, or as an encouragement at the beginning, or solace at the end of a journey, a few pounds of barley, or a few handfuls of beans or dates are sometimes given; but this is a rare ebullition of gen-

erosity, which probably astonishes the Arab who indulges in it quite as much as the animal who is the amazed recipient. When stabled in cities they are fed on hay and chopped straw, and consume about half the average allowance for a horse. The fat of the camel, when he has any, goes to the hump. This is his storehouse of nutriment, which he there secretes when it is abundant, and reabsorbs when it is not found elsewhere sufficient for his wants. The first point that an Arab jockey regards, in bargaining for a camel, is the external appearance of the hump. As that is full or shrivelled, so does he estimate the condition of the animal. After long and tedious journeys, the hump is often seen flattened to near the level of the back.

Major Wayne, of the United States Army, in a report upon camels, to the Secretary of War, dated on board the "Supply," April 10th, 1856, says: "Beyond this supplying with food by reabsorption, the hump does not seem to be intimately connected with the animal's vitality; for Linant Bey informed me that he had repeatedly opened, with a sharp knife, the humps of his dromedaries, when from high feeding they had become so plump as to prevent the fitting of the saddle, and removed large portions of the fat, without in any manner injuring or affecting the general health of the animal."

Not only is the hump a store-house of solid nutriment, on which the camel may draw *ad libitum* as long as it lasts, but he is provided with water-tanks in his stomach, where he can stow away his water for a cruise, like an outward-bound galliot before the time of patent condensers. He has not only four stomachs, but there is in one of them a kind of reservoir, formed of cavities or cells, capable of holding several gallons of water. And he is also fitted up with pumps like a ship, and can pump the water up out of his tanks into his mouth, to moisten his often dry and dusty food. Indeed, Cuvier supposes, and more recent naturalists have accepted the theory, that this ancient and honorable animal, who browsed about the grounds of the first Pharaoh, is furnished with that triumph of modern improvements known as a patent condenser. His conjecture was, that the stomach of the camel is not only able to retain for many days water swallowed by the animal, but that it possesses the further power of secreting a special fluid for moistening the

fauces and viscera, and mingling with the food in rumination, in some such way as certain fish are able to keep the skin moist for some time after they are taken from the water, by the exudation of a fluid secreted for that purpose. It is even said that the fluid found in the water-sac after the death of the camel possesses chemical properties which prove it to be an animal secretion. The Arabs affirm this to be the case, and the French in Algiers seem inclined to acquiesce in this opinion.

General Carbuccia, of the French Army in Algiers, states that "a dromedary, dying by accident, was afterwards opened in the presence of several French officers. The reservoir presented the appearance and consisteney of a melon, and contained more than fifteen pints of a greenish water of no bad flavor. The Arabs present declared that if it were allowed to settle for three days it would become clear and drinkable. The French tried it, and the Arabs were found to be correct in their statements."

Now, with regard to the time that camels will go without drinking, authorities differ, but all agree that his power of abstinence in this respect is wonderful. A French report of the expedition to l'Aghouat declares that the camels of the corps did not drink from February to May, though the weather was hot; and General Carbuccia, the commander of the corps, states that the Algerine camel never drinks during the last two months of autumn and the entire winter and spring. He adds: "At the beginning of summer he drinks, and then abstains fifteen days; after having drunk again, he goes fourteen days without water, then thirteen, then twelve, diminishing gradually his periods of abstinence by a day, until he reaches the seventh day, after which he drinks once a week, and not oftener, whatever may be the heat or the fatigues of the journey."

Durham and Clapperton mention a case of eight days' entire privation of water, with dry food. Burekhardt records an instance of like abstinence of the same duration in the month of August, and, in his "Notes on the Bedouins," he ascribes to the camels of Darfur the power of dispensing with water for nine or ten days, even when on the march. "The Tibboos and other tribes, who constantly traverse the Sahara, are very confidently affirmed to possess camels which can support a privation of fifteen days without serious inconvenience. I have myself," he

continues, "witnessed in Arabia Petrea an instance of complete privation for four days, in very hot weather and with dry fodder." Major Skinner declares that the camels of his caravan did not drink between Damascus and the Euphrates (from the 3d to 23d of April), though water was offered to them on the tenth day of his journey. Tavernier's camels, on one occasion, were nine days without water, and Russell mentions a case of abstinence for fifteen days. A neighbor of mine in Salem, Massachusetts, Colonel Miller, formerly collector of the port, kept a camel in his stables for a winter, which passed a continuous period of six weeks without drinking. The camels that I brought from Africa the past season did not taste water from the time of their shipment at Algiers until they were landed from the railroad cars at Havre. I led them to a trough at the station of the Mediterranean road in Paris, but they merely snuffed up its cool fragrance for a moment, and then, at the word of command, stepped gayly off across the boulevards. Neither did they drink at all during their voyage across the Atlantic to New York, embracing a period of twelve days. "Ships of the land," in sooth! The gallant old steamship "New York" was not more independent of the Croton and the water-tanks of Southampton than were my stanch clippers, "Biskra" and "Luled."

#### SHIPS OF THE DESERT.

There be some hair-splitters who have objected to this time-honored appellation of "ships of the desert," contending that the simile would not be likely to occur to the Arabs, who are not navigators, and averring that the word which we translate "ship" means simply wagon or vehicle. However this may be, there is a peculiar fitness in the simile of the ship, as many of us who have experienced feelings similar to sea-sickness on riding for the first time a camel-back might perchance unwillingly admit. The camel, as we have seen, before setting out on a journey, provisions himself for a voyage; and even as a ship, guided by human intelligence, finds its way over the watery waste, so does he, with unerring instinct, lay his course direct from oasis to oasis, finding a path where all is pathless across the broad-lying sands of the desert. To see a caravan going out of the city gates laden with precious freight, the

camels, with heads erect, already scenting the pure air of the offing, their drivers gayly singing, or shouting farewell to the friends they leave behind, stirs the blood like the sight of a gallant ship, its deck alive with cheery mariners, its sails bellying in the breeze, as, with creaking spars and straining rigging, it bows its head before the freshening blast, spurning the slavish waters of the shore, and leaping to the freedom of the sea. Again, in your travels on some bright, sunshiny morning, you behold them, with their white awnings spread, coming up above the distant horizon of the plain, swinging and rolling across the intervening expanse, and bearing majestically down upon you, for all the world like a homeward-bound East Indiaman running before the wind from Good Hope down to St. Helena. Then, when they arrive in port, and their eargoes are discharged, no awkward floundering or lying on their side to rest, as other animals do, like a ship stranded or hove out when she is a *hulk* and not a ship, but, doubling their limbs under them, they come down handsomely fore and aft, and so lie, gallantly swinging at their anchorage, moored stem and stern, like a frigate in the Downs.

Yet it must not be supposed that it is all plain and prosperous sailing on these seas of sand. Eastern people are proverbially improvident, and, in case of accident, are soon on short allowance. Sometimes springs dry up in the desert, and caravans stray in search of others till they are lost. Sometimes all provision fails. Sometimes the fatal simoom strikes them. Then shipwrecks occur in those vast solitudes, as was the case with a Syrian caravan of three thousand camels and six hundred men which perished in 1858, near Hara Iji Sheham. "It was bound from Damascus to Bagdad, and lost the way. No Bedouin happened to be within reach, and a tribe came upon their remains long after their death." If any of their number put off on fleet beasts in search of aid, as boats sometimes do from sinking ships, they, too, perished by the way. No fated bark ever went down, amid the loneliness of ocean, under more helpless circumstances, or amid surroundings more awful and sublime.

## SPEED AND ENDURANCE.

The camel unites in himself the two sterling qualities of speed and endurance. It is incorrect to suppose that the drom-

dary or running camel is of a different species from the ordinary burden camel. He differs only in being of purer blood, finer organization, and superior training; as the race-horse differs from the dray-horse in our streets. The ordinary pace of the burden camel with full pack, when driven regularly, is from three to five miles an hour, which they will keep up for twelve hours on a stretch, and go for twenty or thirty days without showing signs of fatigue. Some writers affirm that they do better than this, while others place their performances at a lower rate. It would not be fair, however, to measure the animal's capacity by what he actually performs in the East. The Orientals place little value upon time, and have a disjointed, shuffling habit of travelling, allowing their beasts to browse along the road, and stopping at all sorts of odd times, and on the most trivial pretences, in a way that would be quite irksome to our go-ahead race. Nevertheless, as express-riders or mail-carriers, or when any sudden emergency compels them, they scour the country with astonishing rapidity, and perform feats that seem almost incredible.

The speed of the dromedary or running camel is established beyond question. The Hebrew word for dromedary is *kirkarouth*, which means "a swift beast," and is so translated in Isaiah, 66th chapter and 20th verse. When David fell upon the Amalekites, we read that "there escaped not a man of them, save four hundred young men, which rode upon camels and fled."

In 1811 Mahomet Ali, when hastening to destroy the Mamelukes, rode the same camel from Suez to Cairo, eighty-four miles, in a single night. Marsh states that a French officer in the service of the Pacha repeated the same feat in thirteen hours, and that two gentlemen of his acquaintance have performed it in less than seventeen without a change of camel. Laborde made the journey in the same time, and went from Alexandria to Cairo, nearly one hundred and fifty miles, in thirty-four hours. Colonel Chesney rode with four dromedaries from Baarah to Damascus, nine hundred and fifty-eight and a half miles, in nineteen days and a few hours (more than fifty-four miles per day), the animals having no food but such as they picked up on the desert. They averaged from forty-four to forty-six paces per minute, with a length of step of six

feet five inches. Mails have been carried from Bagdad to Damascus, four hundred and eighty-two miles, in seven days; and, on one occasion, by means of regular relays of dromedaries, Mahomed Ali sent an express to Ibrahim Pacha from Cairo to Antioch, five hundred and sixty miles, in five days and a half. Colonel Chesney says the swift dromedary can make eight or nine miles per hour, and accomplish seventy miles a day for several days in succession. Buckhardt, in his "Travels in Nubia," states that the owner of a fine dromedary laid a wager that he would ride the animal from Esneh to Keneh, and back, a distance of one hundred and twenty-five miles, between sun and sun. He accomplished one hundred and fifteen miles, occupying twenty minutes in crossing and re-crossing the Nile by ferry, in eleven hours, and then gave up the wager. Buckhardt thinks this dromedary would have travelled one hundred and eighty or two hundred miles in twenty-four hours without injury. The interesting paper extracted from the notes of General Harlan, and printed in the United States Patent Office Report of 1853, states that the ordinary day's journey of the dromedary of Cabool is sixty miles, but that picked animals will travel one hundred miles a day for several days in succession, their greatest speed being about ten miles an hour.

A French writer in the *Revue Orientale* says:

"I knew a camel-driver who had bought a dromedary belonging to a sheriff of Mecca lately deceased at Cairo. This animal often made the round trip between that city and Suez, going and returning, in twenty-four hours." The distance from Cairo to Suez, as I have already stated, is eighty-four miles, making one hundred and sixty-eight miles travel in twenty-four hours.

In an appendix to the work of General Carbuccia, by Jomard, we find that a detachment of the celebrated dromedary regiment, in the French army of Egypt, marched from Cairo to El Arish, from El Arish to Suez, from Suez to Cairo, and from Cairo to Pelusium, a distance in all of not less than six hundred miles, in eight days, and he states that the ordinary day's march of the regiment was thirty French leagues, or about seventy-five miles, without a halt.

Abd-el-Kader compares the pace of the dromedary to the

noble pace of the ostrich ; and also speaks of him as rivalling the gazelle in fleetness. He says that the Bedouin of the desert gives his horse camel's milk to drink to stimulate him in the race, and adds that a man, by drinking it exclusively for a considerable length of time, acquires such swiftness of foot as to compete successfully with the horse in running.

"When you shall meet a mahari," or swift camel, says an old Arab proverb, "and shall say unto his rider, *Salem Aleik*, ere he shall have answered you *Aleik Salem*, he will be afar off and out of sight, for his fleetness is as the wind."

A writer in Chambers' Journal says he has seen the camel in Northern India move off at the rate of eighteen miles an hour with a piece of light artillery at his heels ; and he adds, in another place, that his usual gait is from twelve to thirteen miles an hour, but that on being pushed he will readily knock off his eighteen to twenty miles within the same period.

The author of Eothen speaks of ten to twelve miles an hour as the ordinary jog-trot of the dromedary, and says he can keep it up for three days and nights, without food, water, or repose.

An Arab chief whom I met in the grain-market at Blidah, gravely informed me that General Yusuf, commander-in-chief of the native forces in Algeria, had repeatedly driven a pair of dromedaries before a wagon from Blidah to Medeah, a distance of twenty-four miles, in half an hour. He explained that the general tied a handkerchief over his mouth, and wore goggles, and had his ears stuffed with cotton-wool, and so got over the road very well. I said nothing by way of comment, but as this dignified chieftain haughtily declined a cigar which I offered him, on the ground of his not using the weed, and I afterwards detected him smoking an old stump which I had thrown away, I came to the conclusion that if he did not exactly prevaricate, he might, as a man of business, have added a handsome per centage to the truth.

The Bedouin who came with me from Africa in charge of my camels, tells me that he has often travelled faster a camel-back than the highest speed yet attained on the Northern New Jersey railroad ; and this I will not gainsay.

#### BURDEN CAPACITY.

The special usefulness of the camel is found in his capacity of bearing burdens. The Hebrew word *gamal*, which we trans-

late camel, means literally *bearer*. He is sometimes used for draught, as in Egypt for ploughing, and British India for drawing heavy ordnance, and some have conjectured that, with a suitable harness, he would make a very serviceable draught animal. But nature seems to have designed him especially for the pack or saddle. The Arabs say that he is born ready harnessed for his work, with his pack-saddle on, in the shape of his hump of fat, gristle, leather, and thick, soft hair. They certainly have added but little to the natural arrangement. The artificial pack-saddle is made by stuffing a bag eight or nine feet in length with straw or hay, sewing the ends together, and fitting it round the hump. Over this is placed a primitive frame-work of some kind of hard wood, composed of two pieces about eighteen inches each in length, disposed in the shape of an inverted V in front, and two other similar pieces behind the hump; these are connected and kept in place by two cross pieces at the bottom, of some three or four feet in length. The whole is dovetailed together and tied with strips of leather. A sailor, with his palm and needle, and skill in splicing, would turn out the whole affair complete at an hour's notice. The frame nestles into the pad, which finds a secure footing in the soft hair round the hump, and only a loose rope, by way of girth, is required to keep the whole in its place.

The camel begins to carry burdens at four years of age, and, if properly treated, will maintain his usefulness to forty. The weight which they can carry varies somewhat, according to the species and condition of the animal. The ordinary pack for a full-grown camel in Algeria is from three hundred to four hundred kilogrammes, which, with the weight of the pack-saddle and driver's luggage, is equivalent to from seven hundred to nine hundred pounds. I have often seen camels walking under much heavier loads, and to this is to be added the weight of the driver, who walks and rides by turns, as the fit is on him. Among some camels imported into Texas, a few years ago, was one that would rise and walk under a burden of nineteen hundred pounds. Even this extraordinary feat has been beaten, as I understand, by one of the Government camels, now in California, which has carried a pack of two thousand pounds for fifty miles in a single day. The camels in the Canary Islands carry an average pack of one thousand pounds, but their journeys

are of course short. Those employed on the Grand Duke's farm, in Tuscany, carry seventeen hundred pounds, Tuscan weight, equivalent to twelve hundred pounds English, and work regularly under this pack from sunrise to sunset. The statements as to the loads carried by camels in Egypt, European Turkey, Arabia, and other parts of Asia, vary from four hundred to fifteen hundred pounds. The usual load of the cotton-carriers in Persia is one thousand pounds.

A French nobleman, the Duke de Luynes, has recently transported on camels, from Jaffa to the Dead Sea, the compartments of a small iron steamer, which he has there set afloat, much to the horror of the Bedouins, who regard it as Satan's last manifestation on those accursed waters. This is an item which our mining friends will do well to make a note of.

The patience and cheerful perseverance exhibited by the camel under his wearisome packs is truly something to admire. You see him coming into town, from a journey, it may be, of weeks, his back bending under his burden, yet striding imperiously through the narrow streets, with head erect, swaying gently to and fro, and calm philosophic eye, and face tranquil as the unworldly sphinx, as if really the heavy load on the other side of his long neck were borne by some other animal than himself, with whose affliction he could not possibly be expected to sympathize.

It is to be considered, in perusing the statements of travellers as to the ordinary camel-load in far Eastern countries, that these loads are somewhat modified by the fact that the commodities thus transported are usually of the most precious and costly character. The long journeys which they make, and the necessarily high cost of freight, preclude the carrying in this way of common fabrics and the life-sustaining grains. These are not, as a rule, articles of international traffic, but are raised and manufactured in the countries where they are consumed. Camels coming into Algiers from the desert usually bring valuable dyestuffs, fine wool, camel's hair, rich skins, tobacco, palm-oil, ostrich-feathers, ivory, and gold-dust. There's a glow of wealth, an odor of spicery, and a flashing of jewels about these camel-freights ever since the time when Joseph's brethren lifted up their eyes as they sat at meat, "and looked, and behold a company of Ishmaelites came from Gilead, with their camels

bearing spicery and balm and myrrh, going to carry it down into Egypt." In Isaiah's prophecy of the blessings in store for the Gentiles, he says: "The multitude of camels shall cover thee; the dromedaries of Midian and Ephah, all they from Sheba shall come, they shall bring gold and incense, and they shall show forth the praises of the Lord." Again he says: "They will carry their riches upon the shoulders of young asses, and their treasures upon the bunches of camels."

The arrival of a caravan, "laden with treasure," is exquisitely painted by Longfellow, in the "Kalif of Baldacca":—

"Into the city of Kambalu,  
By the road that leadeth to Ispahan,  
At the head of his dusty caravan,  
Laden with treasure from realms afar,  
Baldacca and Kelat and Kanahar,  
Rode the great Captain Alau.

"The Khan from his palace window gazed;  
He saw in the thronging street beneath,  
In the light of the setting sun that blazed,  
Through the clouds of dust by the caravan raised,  
The flash of harness and jewelled sheath,  
And the shining scymitars of the guard,  
And the weary camels that bared their teeth,  
As they passed and passed through the gates unbarred  
Into the shade of the palace yard."

Equally good is that sumptuous ballad of Don Fulano, describing the Cid's entry into Valencia, after his victory at Abelfueda, and slaying the five Moorish kings:—

"With dripping sword and horse all sweat he rode into the town,  
The black gore from his plume and flag was raining hotly down;  
His mace was bent; his banner rent, his helmet beaten in:  
The blood-spots on his mail were thick as spots on leopard's skin.

"And after came the hostages, the ransomed and the dead—  
The cloven Moors in wagons piled, the body or the head;  
And heaps of armor, golden-chained, gay plumes and broken flags,  
Piled up as in the tanner's yard, or heaps of beggars' rags.

"Then stately camels, golden-trapped, each silver-white as milk,  
Rich laden with the aloes-wood, soft ambergris, and silk;  
Rich Indian camphor, martin-skins, from Khorasan the fair;  
Ten piles of silver ingots, each a Sultan's triple share.

"Great bales of orange saffron-weed, and crystal diamonds clear;  
 Large Beja rubies, fiery red, such stones the Emirs wear.  
 Last came the shekels and the bars, in leather bags sealed red,  
 And then black slaves, with jars of gold upon each woolly head."

#### SADDLE AND FURNITURE.

The riding-gear of the dromedary is somewhat lighter and more elegant, but otherwise of similar construction to the pack-saddle. Some tribes have adopted the Moorish pattern, which is in the form of a bowl with stirrups, two of which they attach to the frame-work and pad of the Arab saddle, one before and one behind the hump. The baggage of the travellers is swung across midships. The forward seat is occupied by the servant or driver, who occasionally rests his feet upon the camel's neck by way of a change; and the after, which may be styled the quarter-deck, is the seat of the master.

The family arrangement is altogether different. A pair of stout wooden frames is slung over the pack-saddle, somewhat resembling straight-backed chairs, in which, protected by awnings, ride the high-born dames. Another contrivance is a pair of wooden boxes, furnished with cushions of lion or leopard skins, about four feet in length and two in width, usually surmounted with a stylish awning, supported by posts at the four corners, and another rising from the centre of the saddle. These awnings have side-curtains, or perhaps lattices, through which the Mussulman women catch glimpses of the outer world. You occasionally meet a whole family, not indeed so large as Solomon's or Brigham Young's, cuddled together under one of these moving tents. There is also the camel-litter, which is nothing more or less than an Eastern palanquin, borne by two camels harnessed before and behind to its long shafts. This conveyance, in which half a dozen may comfortably ride, is only used for invalids or noble families.

#### CAMEL-RIDING.

You do not vault into the saddle of your dromedary after the chivalrie manner of horsemen. The performance, if less graceful, is often more laughable, and I cannot describe it better than by quoting from a lively writer in an old number of the American Whig Review, who saith:—

"But the dragoman is sounding 'boot and saddle,' after his

fashion ; our camels are laden, our dromedaries are waiting, not indeed champing the bit and pawing the ground like fiery coursers, but, with half-shut eye, lazily ‘chewing the cud of sweet and bitter fancy.’ Let us mount our ungainly steeds and away to the desert.

“The camel, as everybody knows, kneels to receive his load and his rider, and the burden he can rise with is said to be the measure of what he is able to carry. The Bedouins often climb to the saddle without bringing the camel to his knees, or even stopping him, by putting one foot on the callus of the knee, and so clambering up by the neck and shoulder ; but I recommend no such experiments to you. You will find mounting in the ordinary way ticklish enough in the beginning, and you run considerable risk at first of going off by a very illogical *a priori*, or *a posteriori* movement, as the animal rises. It is a bad eminence to fall from, and until you have had considerable practice in this sort of slack-rope exercise, it is good to hold fast by the saddle-pins, both fore and aft, while the dromedary is unfolding his joints and working his traverse upwards. Further, see that your attendant keeps one foot on your camel’s knee until you are well posited and balanced, for he is apt to start up on feeling the weight of his rider, and in this case you may very likely go up on one side and come down on the other. When all is ready, you give the signal, your Arab releases the camel, a sudden jerk from behind pitches you upon the pommel as he raises his haunches (for, as we have told you before, he comes up stern foremost), and then a swell from the stem throws you aft, and so on zig-zag until he is fairly up, when, after a little more rolling, while he is poising and steady-ing, backing and filling, and getting his feet into marching order, he steps off, and you are at last underweigh on your quest for Mesopotamia, Arabia Petræa, or the oasis of Jupiter Ammon.”

Once on the road, you feel a sense of security in your lofty seat that is quite encouraging. You have no fear that he will stampede on hearing the shriek of a locomotive, or an organ-grinder entertaining the community with the tune of “Sweet Home.” If he should happen to stumble and fall, which is a very unusual occurrence, he comes down slow and sure, and does not immediately afterwards threaten your brains or your

bread-basket by any playful indulgence in light gymnastics with his heels. As for shying, as a country horse will do at a yellow dog, or at a lawyer with his green satchel, he rather merits, on the contrary, the encomium bestowed upon the horse that you remember Mr. Winkle was to ride once upon a time.

"Shy," said the 'ostler, "vy, bless· you, sir, he wouldn't shy, if he vas to see a 'ole wagon-load o' monkeys a-comin' down the street vith their tails shaved off."

The gait of the camel, from its peculiar jerking motion, is at first disagreeable to most persons, but you soon become accustomed to it, after which the exercise, and the refreshing purity of the air, at so great a height from the ground, operate as an exhilarating tonic. A camel-ride of days—not of hours—is always a pleasant experience to look back upon. Travellers invariably refer with delight, and sometimes with the greatest enthusiasm, to their journeys a-camel-back.

And this—though apart from a strictly economic view of the subject—is an important consideration: the pleasure to be derived, and the vigorous health to be acquired, by a system of camel-riding. Genuine camel-riding I mean—not as we stiffen up our nautical nerves by a trip from the Elysian Fields, round the light-ship, and so back to New York—but camel-riding, day after day, for a succession of days—a trip to Colorado or Salt Lake, or down to Albuquerque, or Santa Fe. It would do us good. I think it might become fashionable. Americans need a little change of this sort. They are too much in the sugar and cotton line, as Halleck says. They deal too exclusively with the inanimate forces of nature for their own real comfort, delving in mines, going down into wells after oil, putting steam into harness to ride behind it, and otherwise shamefully abusing it. They need a little more of that life in the open air that gave Winthrop his bounding pulse, and made him none the less a patriot for that. Glorious chap. What an outrageous flow of spirits was on him when he struck Boston Tilicum in the backwoods of Oregon, and they had coffee and crisped bacon for supper, and toasted doughboys in ridiculous abundance!

"Three things," says Abd-el-Kader, "give vigor of body and joy of heart—air, exercise, and the aspect of things external." Hear Kinglake on this subject: "To taste the cold breath of

the earliest morn, and to lead or follow your bright cavalcade till sunset through forests and mountain passes, through valleys and desolate plains, all this becomes your *Mode of Life*, and you ride, eat, drink, and curse the mosquitoes, as systematically as your friends in England eat, drink, and sleep. If you are wise, you will not look upon the long period of time thus occupied by your journeys as the mere gulfs which divide you from the place to which you are going, but rather as the most rare and beautiful portions of your life, from which may come temper and strength. Once feel this, and you will soon grow happy and contented in your saddle-home."

"It is so sweet to find one's self free from the stale civilization of Europe! Oh, my dear Ally, when first you spread your carpet in the midst of these fresh scenes, do think for a moment of those of your fellow-creatures that dwell in squares and streets, and even (for such is the fate of many) in actual country houses—think of the people that are 'presenting their compliments,' and 'requesting the honor,' and 'much regretting' of those who are pinioned at dinner-tables, or stuck up in ball-rooms, or cruelly planted in pews; aye, think of these, and so, remembering how many poor devils are living in a state of utter respectability, you will glory all the more in your own delightful escape."

#### IMPORTATION INTO THE UNITED STATES.

When we reflect on the eminent usefulness of the camel in the East, and the vast numbers that there contribute in various ways to man's comfort and support, it appears, at first sight, matter of surprise that he has not hitherto been introduced to any general extent upon this continent. All the great nations of the old world, possessing wide tracts of unoccupied or thinly-settled country—the Chinese, Tartar, Persian, Russian, Arab, Turk, and Egyptian—use the camel. Some of these have used him from the beginning; but none that have once enjoyed his services have manifested any subsequent disposition to forego them. On the contrary, in Russia, European Turkey, and Western Africa, the uses of this valuable animal are becoming daily better appreciated and more widely extended. In Algeria, where the French have constructed magnificent roads at enormous expense, the camel remains the favorite means of

transportation. The Casbah is in ruins, and "the civilizing flag of France" waves from its topmost remaining turret; only the site where stood the pirates' lookout, whence the Algerines were wont to signalize the appearance of a strange sail in the offing to their confederates in the port below, is now pointed out to the traveller; for the pirate's occupation is gone. The caves and holes in which burrowed the swarthy Moors, and the dark alleys through which they stealthily crept in their daily avocations, have given place to spacious blocks of houses and broad boulevards; but the Arab still comes from the mountains and the desert on his camel as of yore; his stately caravans, laden with precious freight, still make traffic through all that wide domain, and his proud conquerors have not disdained, in this particular, to follow in his footsteps.

America had no original domestic quadruped but a species of elk, the llama tribe, and, to a certain extent, the bison or buffalo. The horse, the ass, the ox, the sheep, the goat, and the hog, were brought over by the early settlers. The indispensable benefits we have derived from their introduction, domestication, and large increase in our country, are recognized by all. Yet the camel is a more useful animal, more hardy, and will bear ocean transportation better, than any of these other animals.

This latter point is well established by the testimony of Porter, Wayne, Heap, and many others; and my own experience in the shipment of animals for many years has led me to the same conclusion.

#### USE IN TEXAS AND OVERLAND.

That the camel finds himself at home in the local conditions of our climate and soil, and does not deteriorate, but rather improves in health and vigor by a change of domicil, has been thoroughly demonstrated by the result of the experiments made by the United States Government, in 1855, '56, and '57.

The report of Captain Beale, of the United States Army, to the Secretary of War, of an overland trip with emmels, carrying seven hundred pounds each, from Texas to California, in 1857, is very full and satisfactory; but I do not happen to have it by me to quote from at this time.

The following extracts are from the official reports of Major

Wayne, dated respectively September 24th, and November 5th, 1856, and February 21st, 1857, and will be found sufficiently comprehensive and conclusive :—

“On the 28th of August I sent down six camels, under my clerk, Mr. Ray, to San Antonio, for oats, in company with three wagons from this post (Camp Verde, Texas). The camels could, as it turned out, have gone down leisurely in two days, but, governed in their movements by the wagons (though they were empty), they went down in three, the wagons being restrained in their march by the want of water along the route. On Monday, September 1st, Captain McLean, assistant quartermaster at San Antonio, sent back the camels to me at 12 M., with 3,648 pounds of oats, an average of 608 pounds to each animal. At 6 p. m. on Wednesday, the 3d of September, the camels were again in this camp, and had delivered their loads, having travelled leisurely, *and with much less weight than they could easily have transported*. On Tuesday, September 2d, the wagons were returned by Captain McLean at 12 M. On Saturday, September 6th, they arrived in camp at 12½ p. m., only one wagon carrying 1,900 pounds, and the others averaging about 1,800 pounds; the loads that experience has taught can be safely transported in them over this rough and thinly-settled country. From this trial, it will be seen that the six camels transported over the same ground and distance the weight of two six-mule wagons, and gained on them 42½ hours in time. Remember, moreover, that the keep of a camel is about the same as that of a mule (if any difference, it being rather in favor of the camel, as it eats no more, and ruminates like a cow), and that there is no heavy outlay for wagons, harness, etc. (the only equipment being a very rude pack-saddle, that can be made by the camel-drivers themselves), and you will have all the data necessary for a comparison of the two methods of transportation just related.      \*      \*      \*      \*      \*

“On Saturday night, October 4th, and Sunday morning, it rained in San Antonio heavily, wetting the roads deeply, and making them muddy and boggy. Wagoning through such mud is labor lost, for the viscosity of this soil is such that it packs firmly on the wheel, and as with each revolution a new layer is taken up, the tire and felloes soon become incased in a thick

coating of pressed earth, rendering traction slow and painful. Travelling in such roads, with any thing like a load in a wagon, is out of the question. This condition of the road offered an opportunity for another test,—the travelling of the camel in muddy weather,—not contemplated by me when the caravan left, but which the information and sagacity of Mr. Ray at once embraced. Packing light loads upon the camels, he took advantage of a temporary cessation of rain, between 12 m. and 1 p. m., on Sunday, the 5th of October, and commenced his return to camp. The rain continued with slight intermissions, but generally coming down in torrents, throughout Sunday night and the succeeding Monday and Tuesday. On Tuesday evening, October 7th, the caravan reached camp at 7 p. m., and delivered 3,800 pounds of oats, and a few miscellaneous stores that it had transported, the state of the roads having impeded but little its progress. Experienced, disinterested persons said, at the time, that loaded wagons could not have travelled in such weather."

\*     \*     \*     \*     \*

" We have camels that for short distances will easily transport twelve and fifteen hundred pounds, yet never but in one instance has there been put upon them more than about six hundred pounds. The exception referred to was during my stay in Indianola, and within the first month or six weeks after landing. Needing hay at the camel-yard, I directed one of the men to take a camel to the quartermaster's forage-house and bring up four bales. Desirous of seeing what effect it would produce upon the public mind, I mingled in the crowd that gathered round the camel as it came into town. When made to kneel down to receive its load, and two bales, weighing in all 613 pounds, were packed on, I heard doubts expressed around me as to the animal's ability to rise under them; when two more bales were put on, making the gross weight of the load 1,256 pounds, incredulity as to his ability to rise, much less to carry it, found vent in positive assertion. To convey to you the surprise and sudden change of sentiment when the camel, at the signal, rose and walked off with his four bales of hay, would be impossible. It is sufficient to say that I was completely satisfied. I would have put on two more bales—about 1,800 pounds—but four bales were sufficient for my

purposes, and the animal had no particular effort (objectionable after so long a sea voyage) to make under them."

#### MILITARY SERVICES.

Although traditionally a peaceful animal, lacking those fiery attributes which Job bestows upon the war-horse, yet has the camel occasionally rendered distinguished service in military movements. They have been used for centuries by the Persians in their wars against the Turks. Our officers who visited the Crimea, in 1855, found them highly appreciated by the British, who had previously used them in India for cavalry service. The operation of the famous dromedary regiment, organized by the first Napoleon in Egypt, was a brilliant success; and the recent experiments of the same nature in Algeria, are said to have resulted in a manner entirely satisfactory to the officers in charge. Whether they can be advantageously substituted for, or used in connection with, the horse in the regular military operations of our army, is an open question; but there is no doubt that, as an armed escort, they will render good service in protecting our overland trains from Indian depredations.

"There are few more imposing spectacles," says Marsh, "than a body of armed men, advancing under the quick pace of the trained dromedary; and this sight, with the ability of the animal to climb ascents impracticable to horses, and thus to transport mountain howitzers, light artillery, stores, and other military matériel into the heart of the mountains, would strike with a salutary terror the Camanches, Lipaus, and other savage tribes upon our borders." And he thus sums up his qualifications for martial rank, which it will be seen are equally valuable to him as a beast of burden.

"Among the advantages of the camel for military purposes," he says, "may be mentioned the economy of his original cost as compared with the horse or mule, when once introduced and fairly domesticated--the simplicity and cheapness of his saddle and other furniture, which every soldier can manufacture for himself; the exemption from the trouble and expense of providing for his sustenance, and from dressing, sheltering, or shoeing him; his great docility, his general freedom from disease, his longevity, the magnitude of his burden, and the great

celerity of his movements ; his extraordinary fearlessness ; the safety of his rider, whether from falls or the viciousness of the animal ; the economical value of his flesh, and the applicability of his hair and skin to many purposes of military use or convenience ; the resources which in extreme cases the milk might furnish, and, finally, his great powers of abstinence from both food and drink."

#### ADAPTABILITY TO OUR FAR WEST.

It would be idle now to speculate as to what would have been the effect on our civilization, if Columbus, when he sailed from Cadiz for Santo Domingo, on the 25th of September, 1493, on his second voyage of exploration, taking with him horses, cattle, and other domestic animals wherewith to stock the New World, had taken some camels also. With the increased facilities they would have afforded us for a larger development, might we not have become more of a pastoral people—less selfish and greedy of gain, taking more liberal and comprehensive views of human affairs? Might not our country have been more fully explored; and to an extent settled, and farther advanced towards its sublime destiny? And what would have been the effect on the Indian question? Should we have used the camel exclusively to hunt that stricken and decaying people more swiftly to their death; or would he have been, on the other hand, a civilizing element in their midst, winning them by his *morale* to more useful and tranquillizing pursuits, a means of utilizing rather than exterminating them?

All the local conditions and influences of our Western country indicate most unmistakably the camel as its appropriate denizen. Take a map of the world on the Mercator projection, and you will see that the parallels on which he is used to the greatest extent, and to the best advantage in the Old World, are precisely those on which we propose to employ him in the New. The great geological, climatic, and topographical features of the eastern and western parallels are sufficiently similar. Both on the Great Plains which form the eastern slope of the Rocky Mountains, embracing nearly the entire valley of the Rio Grande, and extending northward beyond the northern boundary of the United States, and in the Great Basin of the interior, between the Rockys and the Sierra Nevada, there are

large tracts of country closely resembling the deserts of Africa and Arabia. None of our mountain passes are more rugged or steeper, or more subjected to the obstacles of snow and ice, than those of China, Tartary, or northern Africa. Some have suggested that the greater humidity of portions of our continent, giving more of an alluvial character to the soil, would be found objectionable. Mud is always an impediment to travel, but I think the extracts which I have read from Major Wayne's Reports show that the camel is by no means thrown *hors de combat* from this cause; at all events, we may safely affirm that even under these conditions, least favorable to his character and capacity—which are, by the way, the exception and not the rule—the camel will be found to possess many advantages over the loaded team as a means of transportation.

That this useful and valuable animal has not hitherto been introduced into our continent, may be attributed partly to the fact that our population has been made up almost exclusively from peoples not familiar with the uses of the camel—the overflow, as it were, of the denser countries of Western and Central Europe. No great territorial nation has sent us any contribution to speak of; and, besides, our previous requirements may not seem to have imperatively demanded the use of any other means of conveyance than those which we found ready provided to our hands. But with the gold discoveries in California, and the subsequent discoveries of the precious metals in our inland Territories, the aspect of the case is changed: other and better facilities are called for, and must be had. In this view of the question, I think I hazard little in repeating a prediction which I made in a work published in Boston in 1851, that "the camel will yet be domesticated and bred in our Western States and Territories as the horse, the mule, and the ox now are, and will doubtless do more towards extending the outskirts of our civilization than all other appliances to boot."

There, in the golden wake of sunset, lies the peerless West, offering us with lavish hand her priceless treasures. There she stands like a queen, flushed and proud, arrayed in garments of silver with ornaments of gold, waiting to be crowned with the glory of human population, like Memnon's statue in the wilderness, waiting for the dawn of human industry to become musical with its hum. Macaulay, at the close of his essay on "Mitford's

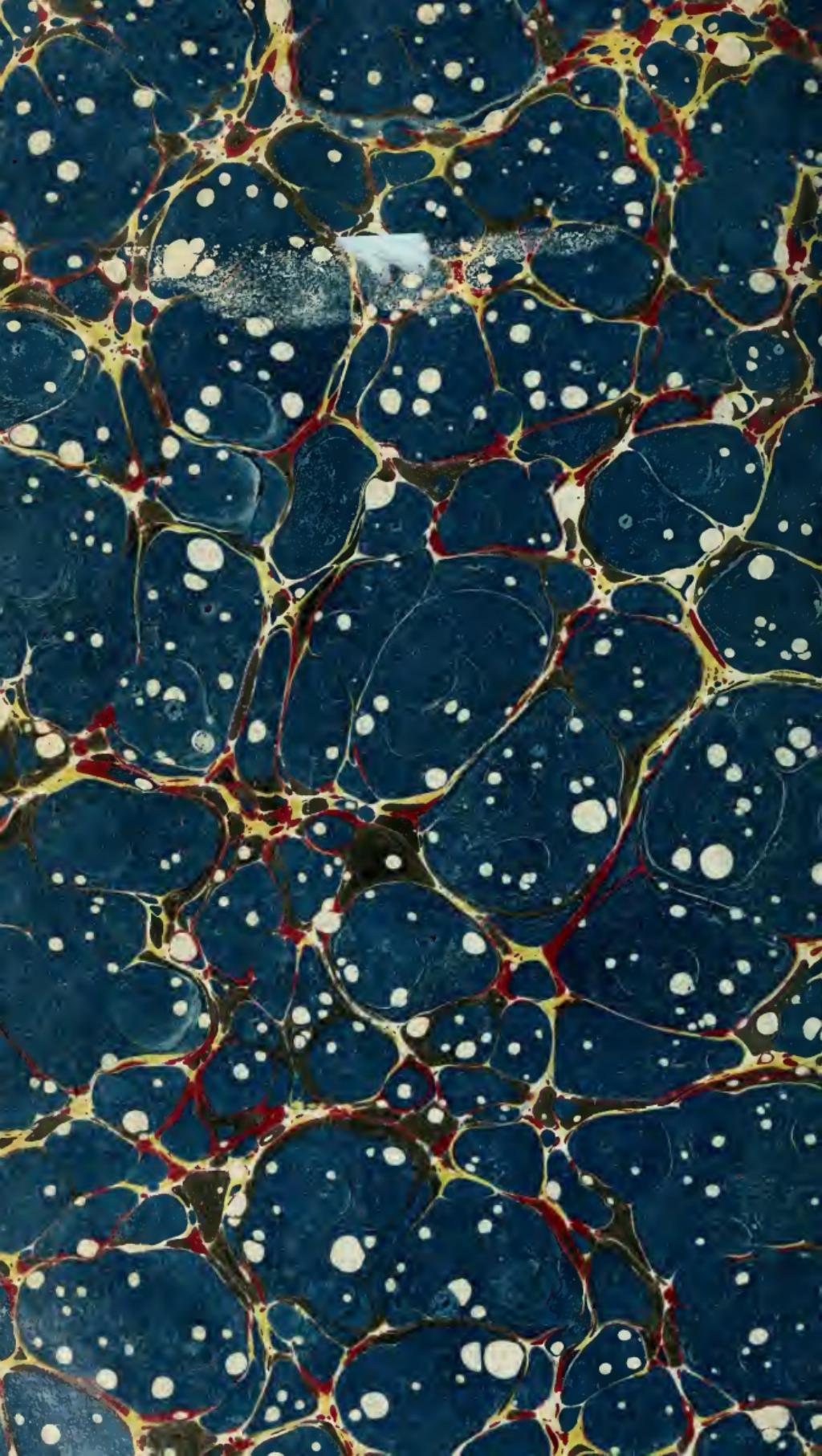
Greece," with a touching sadness that partakes of the sublime, suggests the possibility of a coming period, "when civilization and knowledge shall have fixed their abode in some distant continent, and the sceptre shall have passed away from England; when, perhaps, travellers from distant regions shall in vain labor to decipher, on some mouldering pedestal, the name of her proudest chief; shall hear savage hymns chanted to some misshapen idol over the ruined dome of her proudest temple, and shall see a single naked fisherman wash his nets in the river of ten thousand masts."

This is the poetical foreshadowing of a fact already in process of being accomplished. A great continental empire is growing up here, with the Rocky Mountains for its massive and towering centre. Let us follow up the fancy of Macaulay and divest it of its gloom. Let us imagine some future traveller, standing upon our topmost central peak, gazing on either hand upon the wide expanse of mountain, valley, and broad sweeping plain, peopled with a healthy, hardy race, living near their mother earth, and drawing vigorous sustenance from her ample bosom; inheritors of earth's last, best civilization, yet possessing the simple tastes and primitive habits of the patriarchs; with streams of travel flowing in all directions, the iron horse rushing along the narrow ribbon of his appointed course, the plains whitened with tented wagons, and, coming from farther distances along their broader roads, caravans of camels—and he shall behold a mighty and Heaven-favored land, fair to look upon, chastened and purified, within its wide realm a competence and a home for the migratory hosts from every clime, and throughout all its radiant borders **FREEDOM FOREVERMORE.**









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